

Sequence Listing

<110> Baker, Kevin  
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Goddard, Audrey  
Godowski, Paul  
Grimaldi, Christopher  
Gurney, Austin  
Hillan, Kenneth  
Kljavin, Ivar  
Napier, Mary  
Roy, Margaret  
Tumas, Daniel  
Wood, William

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DRAFT 10/20/98

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<211> 737

<212> PRT

<213> Homo Sapien

<400> 15

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Ser	Ser	Leu	Ala	Asn	Pro	Val	Pro	Ala	Ala	Pro	Leu	Ser	Ala	Pro
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Gly	Pro	Cys	Ala	Ala	Gln	Pro	Cys	Arg	Asn	Gly	Gly	Val	Cys	Thr
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Ser	Arg	Pro	Glu	Pro	Asp	Pro	Gln	His	Pro	Ala	Pro	Ala	Gly	Glu
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Pro	Gly	Tyr	Ser	Cys	Thr	Cys	Pro	Ala	Gly	Ile	Ser	Gly	Ala	Asn
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Cys	Gln	Leu	Val	Ala	Asp	Pro	Cys	Ala	Ser	Asn	Pro	Cys	His	His
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Gly	Asn	Cys	Ser	Asp	Gly	Tyr	Leu							

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Arg Gln Leu Gln Pro Val Pro Ala Thr Gln Glu Pro Asp Lys Ile			
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Leu Pro Arg Ser Gln Ala Thr Val Thr Leu Pro Thr Trp Gln Pro			
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Lys Thr Gly Gln Lys Val Val Glu Met Lys Trp Asp Gln Val Glu			
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Val Ile Pro Asp Ile Ala Cys Gly Asn Ala Ser Ser Asn Ser Ser			
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Ala Gly Gly Arg Leu Val Ser Phe Glu Val Pro Gln Asn Thr Ser			
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Val Lys Ile Arg Gln Asp Ala Thr Ala Ser Leu Ile Leu Leu Trp			
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Lys Val Thr Ala Thr Gly Phe Gln Gln Cys Ser Leu Ile Asp Gly			
245	250	255	
Arg Ser Val Thr Pro Leu Gln Ala Ser Gly Gly Leu Val Leu Leu			
260	265	270	
Glu Glu Met Leu Ala Leu Gly Asn Asn His Phe Ile Gly Phe Val			
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Asn Asp Ser Val Thr Lys Ser Ile Val Ala Leu Arg Leu Thr Leu			
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Val Val Lys Val Ser Thr Cys Val Pro Gly Glu Ser His Ala Asn			
305	310	315	
Asp Leu Glu Cys Ser Gly Lys Gly Lys Cys Thr Thr Lys Pro Ser			
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Glu Ala Thr Phe Ser Cys Thr Cys Glu Glu Gln Tyr Val Gly Thr			
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Phe Cys Glu Glu Tyr Asp Ala Cys Gln Arg Lys Pro Cys Gln Asn			
350	355	360	
Asn Ala Ser Cys Ile Asp Ala Asn Glu Lys Gln Asp Gly Ser Asn			
365	370	375	
Phe Thr Cys Val Cys Leu Pro Gly Tyr Thr Gly Glu Leu Cys Gln			
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Ser Lys Ile Asp Tyr Cys Ile Leu Asp Pro Cys Arg Asn Gly Ala			
395	400	405	

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425 430 435  
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455 460 465  
Ala Gln Leu Ile Asp Phe Cys Ala Leu Ser Pro Cys Ala His Gly  
470 475 480  
Thr Cys Arg Ser Val Gly Thr Ser Tyr Lys Cys Leu Cys Asp Pro  
485 490 495  
Gly Tyr His Gly Leu Tyr Cys Glu Glu Tyr Asn Glu Cys Leu  
500 505 510  
Ser Ala Pro Cys Leu Asn Ala Ala Thr Cys Arg Asp Leu Val Asn  
515 520 525  
Gly Tyr Glu Cys Val Cys Leu Ala Glu Tyr Lys Gly Thr His Cys  
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Glu Leu Tyr Lys Asp Pro Cys Ala Asn Val Ser Cys Leu Asn Gly  
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Pro Gly Phe Thr Gly Glu Glu Cys Asp Ile Asp Ile Asn Glu Cys  
575 580 585  
Asp Ser Asn Pro Cys His His Gly Gly Ser Cys Leu Asp Gln Pro  
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Asn Gly Tyr Asn Cys His Cys Pro His Gly Trp Val Gly Ala Asn  
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Cys Glu Ile His Leu Gln Trp Lys Ser Gly His Met Ala Glu Ser  
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Ile Cys Arg Ile Ser Arg Ile Glu Tyr Gln Gly Ser Ser Arg Pro  
665 670 675  
Ala Tyr Glu Glu Phe Tyr Asn Cys Arg Ser Ile Asp Ser Glu Phe  
680 685 690  
Ser Asn Ala Ile Ala Ser Ile Arg His Ala Arg Phe Gly Lys Lys

695

700

705

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Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys  
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Asp Leu

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<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

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<210> 17

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

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<210> 18

<211> 508

<212> DNA

<213> Homo Sapien

<400> 18

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tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggtaaggt 200

cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtgttcag 250

gaaaaggaaa atgcaccacg aagccgtcag agccaacttt ttccctgttacc 300

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aagatgggag caatttcacc tgtgtttgcc ttccctggta tactggagag 450

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taggggag 508

<210> 19  
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<212> DNA  
<213> Homo Sapien

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aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150  
tctgtgacta agtctattgt ggcttgcgc ttaactctgg tggtaaggt 200  
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aagatgggag caatttcacc tgtgtttgcc ttccctggta tactggagag 450  
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taggggag 508

<210> 20  
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<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

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gcccacacca tgccggggcac ctacgctccc tcgaccacac tcagtagtcc 150

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cagcctggac aggcttagag atggcctcggt gggcgccag ttctggtcag 350

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<210> 24  
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<212> PRT  
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Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser  
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80 85 90  
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125 130 135  
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe  
140 145 150  
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn  
155 160 165  
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr  
170 175 180

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala  
185 190 195  
Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser  
200 205 210  
Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val  
215 220 225  
Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg  
230 235 240  
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245 250 255  
Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro  
260 265 270  
Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys  
275 280 285  
Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp  
290 295 300  
Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr  
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Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu  
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335 340 345  
Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu  
350 355 360  
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser  
365 370 375  
Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln  
380 385 390  
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala  
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<210> 25  
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<220>  
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<400> 25  
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<210> 26  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 26  
cgtgatggtg tctttgtcca tggg 24

<210> 27  
<211> 24  
<212> DNA  
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<220>  
<223> Synthetic oligonucleotide probe

<400> 27  
ctccaccaat cccgatgaac ttgg 24

<210> 28  
<211> 50  
<212> DNA  
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<220>  
<223> Synthetic oligonucleotide probe

<400> 28  
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<210> 29  
<211> 1416  
<212> DNA  
<213> Homo Sapien

<400> 29  
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gccctgatgc gggacttccc gctcgtggac gcccacaacg acctgcccct 200  
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<210> 30  
<211> 446  
<212> PRT  
<213> Homo Sapien

<400> 30  
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20 25 30  
Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln  
35 40 45  
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

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80								85						90
Asp	Ala	Leu	Arg	Leu	Thr	Leu	Glu	Gln	Ile	Asp	Leu	Ile	Arg	Arg
95								100						105
Met	Cys	Ala	Ser	Tyr	Ser	Glu	Leu	Glu	Leu	Val	Thr	Ser	Ala	Lys
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125														
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									200					210
200														
Asp	Ala	Val	Ala	Arg	Arg	Ala	Leu	Glu	Val	Ser	Gln	Ala	Pro	Val
									215					225
215														
Ile	Phe	Ser	His	Ser	Ala	Ala	Arg	Gly	Val	Cys	Asn	Ser	Ala	Arg
									230					240
230														
Asn	Val	Pro	Asp	Asp	Ile	Leu	Gln	Leu	Leu	Lys	Lys	Asn	Gly	Gly
									245					255
245														
Val	Val	Met	Val	Ser	Leu	Ser	Met	Gly	Val	Ile	Gln	Cys	Asn	Pro
									260					270
260														
Ser	Ala	Asn	Val	Ser	Thr	Val	Ala	Asp	His	Phe	Asp	His	Ile	Lys
									275					285
275														
Ala	Val	Ile	Gly	Ser	Lys	Phe	Ile	Gly	Ile	Gly	Gly	Asp	Tyr	Asp
									290					300
290														
Gly	Ala	Gly	Lys	Phe	Pro	Gln	Gly	Leu	Glu	Asp	Val	Ser	Thr	Tyr
									305					315
305														
Pro	Val	Leu	Ile	Glu	Glu	Leu	Leu	Ser	Arg	Gly	Trp	Ser	Glu	Glu
									320					330
320														
Glu	Leu	Gln	Gly	Val	Leu	Arg	Gly	Asn	Leu	Leu	Arg	Val	Phe	Arg
									335					345
335														

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu  
350 355 360  
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser  
365 370 375  
Asp Leu Ser Arg Leu Arg Gln Ser Leu Thr Ser Gly Gln  
380 385 390  
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala  
395 400 405  
Lys Trp Ser Val Ser Glu Ser Ser Pro His Pro Asp Lys Thr His  
410 415 420  
Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser  
425 430 435  
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr  
440 445

<210> 31  
<211> 1790  
<212> DNA  
<213> Homo Sapien

<400> 31  
cgccccagcga cgtgcgggcg gcctggcccg cgccctcccg cgcccgccct 50  
gcgtcccccg cgccgcgcga ccgcgcgcga gcccgcagcc gcccgcgcgc 100  
cccgccagcg ccggccccat gcccgcgcgc cgccggggcc ccgcccgccta 150  
atccgcgcgg cggccgcgcgc cgttgctgcc cctgctgctg ctgctctgctg 200  
tcctcggggc gcccgcagcc ggatcaggag cccacacagc tgtgatcagt 250  
ccccaggatc ccacgcttct catcggtctcc tccctgctgg ccacctgtctc 300  
agtgcacgga gaccaccagg gagccaccgc cgagggcctc tactggaccc 350  
tcaacgggcg ccgcctgccc cctgagctct cccgtgtact caacgcctcc 400  
accttggctc tggccctggc caacctaatt gggccaggc agcggtcggt 450  
ggacaacccgc gtgtgccacg ccgcgtacgg cagcatcctg gctggctct 500  
gcctctatgt tggcctgccc ccagagaaac ccgtcaacat cagctgctgg 550  
tccaagaaca tgaaggactt gacctgcgcg tggacgccag gggccacgg 600  
ggagacccctc ctccacacca actactccct caagtacaag ctttaggtgg 650  
atggccagga caacacatgt gaggagtacc acacagtggg gccccactcc 700  
tgccacatcc ccaaggaccc ggctctcttt acgccctatg agatctgggt 750  
ggaggccacc aaccgcctgg gctctggcccg ctccgatgta ctcacgctgg 800

atatcctgga tgtggtgacc acggacccccc cgcccgacgt gcacgtgagc 850  
cgcgctgggg gcctggagga ccagctgagc gtgcgctggg tgtcgccacc 900  
cgccctcaag gatttcctct ttcaagccaa ataccagatc cgctaccgag 950  
tggaggacag tgtggactgg aaggtggtgg acgatgtgag caaccagacc 1000  
tcctgccgcc tggccggcct gaaaccggc accgtgtact tcgtgcaagt 1050  
gctgcaac cccttggca tctatggctc caagaaagcc gggatctgga 1100  
gtgagtggag ccacccaca gccgcctcca ctcccgca gtagcgcccg 1150  
ggcccgcccg gcggggcggt cgaaccgcgg ggcggagagc cgagctcg 1200  
gccgggtgcgg cgcgagctca agcagttcct gggctggctc aagaagcacg 1250  
cgtactgctc caacccctc ttcgcctct acgaccagtg gcgagcctgg 1300  
atgcagaagt cgacacaagac ccgcaaccag gacgagggga tcctgccctc 1350  
ggcagacgg ggcacggcga gaggtcctgc cagataagct gtaggggctc 1400  
aggccaccct ccctgccacg tggagacgca gaggccgaac ccaaactggg 1450  
gccacctctg taccctcact tcagggcacc tgagccaccc tcagcaggag 1500  
ctgggggtgcgc ccctgagctc caacggccat aacagctctg actcccacgt 1550  
gaggccaccc ttgggtgcac cccagtgggt gtgtgtgtgt gtgtgagggt 1600  
tggttgagtt gcctagaacc cctgccaggg ctgggggtga gaaggggagt 1650  
cattactccc cattacctag ggccctcca aaagagtctt ttaaataaaa 1700  
tgagctatgggtgtg attgtgaaaa aaaaaaaaaa aaaaaaaaaa 1750  
aaaaaaaaaaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa 1790

<210> 32  
<211> 422  
<212> PRT  
<213> Homo Sapien

<400> 32  
Met Pro Ala Gly Arg Arg Gly Pro Ala Ala Gln Ser Ala Arg Arg  
1 5 10 15  
Pro Pro Pro Leu Leu Pro Leu Leu Leu Leu Cys Val Leu Gly  
20 25 30  
Ala Pro Arg Ala Gly Ser Gly Ala His Thr Ala Val Ile Ser Pro  
35 40 45  
Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys  
50 55 60

Ser Val His Gly Asp Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr  
 65 70 75  
 Trp Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val  
 80 85 90  
 Leu Asn Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly  
 95 100 105  
 Ser Arg Gln Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp  
 110 115 120  
 Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro  
 125 130 135  
 Glu Lys Pro Val Asn Ile Ser Cys Trp Ser Lys Asn Met Lys Asp  
 140 145 150  
 Leu Thr Cys Arg Trp Thr Pro Gly Ala His Gly Glu Thr Phe Leu  
 155 160 165  
 His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu Arg Trp Tyr Gly Gln  
 170 175 180  
 Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys  
 185 190 195  
 His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr Glu Ile Trp  
 200 205 210  
 Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu  
 215 220 225  
 Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp  
 230 235 240  
 Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln Leu Ser Val  
 245 250 255  
 Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala  
 260 265 270  
 Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys  
 275 280 285  
 Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly  
 290 295 300  
 Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro  
 305 310 315  
 Phe Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp  
 320 325 330  
 Ser His Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly  
 335 340 345  
 Pro Gly Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser

350 355 360  
Gly Pro Val Arg Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys  
365 370 375  
Lys His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln  
380 385 390  
Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp  
395 400 405  
Glu Gly Ile Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro  
410 415 420  
Ala Arg

<210> 33  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 33  
cccgccccgac gtgcacgtga gcc 23

<210> 34  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 34  
tgagccagcc caggaactgc ttg 23

<210> 35  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 35  
caagtgcgt gcaaccctt tggcatctat ggctccaaga aagccgggat 50

<210> 36  
<211> 1771  
<212> DNA  
<213> Homo Sapien

<400> 36  
cccacgcgtc cgctgggttt agatcgagca accctctaaa agcagtttag 50

agtggtaaaa aaaaaaaaaa acacaccaaa cgctcgacg cacaagg 100  
atgaaatttc ttctggacat cctccgtctt ctcccggtac tgatcgctg 150  
ctccctagag tccttcgtga agcttttat tcctaagagg agaaaatcag 200  
tcacccggcga aatcgtgctg attacaggag ctggcatgg aattgggaga 250  
ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300  
tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg 350  
gtgccaaggt tcatacctt gtggtagact gcagcaaccg agaagatatt 400  
tacagctctg caaagaaggt gaaggcagaa attggagatg ttagtatttt 450  
agtaaataat gctgggttag tctatacatc agatttgtt gctacacaag 500  
atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550  
actacaaagg catttcttcc tgcaatgacg aagaataacc atggccatat 600  
tgtcactgtg gttcggcag ctggacatgt ctgggtcccc ttcttactgg 650  
cttactgttc aagcaagttt gctgctgtg gattcataa aactttgaca 700  
gatgaactgg ctgccttaca aataactgga gtcaaaacaa catgtctgtg 750  
tcctaatttc gtaaacactg gttcatcaa aaatccaagt acaagttgg 800  
gaccactct ggaacctgag gaagtggtaa acaggctgat gcatgggatt 850  
ctgactgagc agaagatgat ttttattcca tcttctatag ctttttaac 900  
aacattggaa aggatccttc ctgagcgtt cctggcagtt taaaaacgaa 950  
aaatcagtgt taagtttgat gcagttattg gatataaaat gaaagcgc当地 1000  
taagcaccta gtttctgaa aactgattt ccaggttag gttgatgtca 1050  
tctaatacgcc ccagaatttt aatgttgaa cttctgttt ttcttaattat 1100  
ccccatttct tcaatatcat ttttgaggct ttggcagtct tcatttacta 1150  
ccacttgc ttttagccaaa agctgattac atatgatata aacagagaaa 1200  
tacctttaga ggtgacttta agaaaaatga agaaaaagaa ccaaaatgac 1250  
tttattaaaa taatttccaa gattattgt ggctcacctg aaggcttgc 1300  
aaaatttgc ccataaccgt ttatataaca tatatttttta ttttgattg 1350  
cacttaattt ttgtataatt tttgtttctt tttctgttct acataaaatc 1400  
agaaaacttca agctctctaa ataaaaatgaa ggactatatc tagtggtatt 1450  
tcacaatgaa tatcatgaac tctcaatggg taggtttcat cctaccatt 1500

gccactctgt ttcctgagag atacctcaca ttccaatgcc aaacatttct 1550  
gcacagggaa gctagaggtg gatacacgtg ttgcaagtat aaaagcatca 1600  
ctgggattta aggagaattg agagaatgta cccacaaatg gcagcaataa 1650  
taaatggatc acacttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1750  
aaaaaaaaaa aaaaaaaaaa a 1771

<210> 37  
<211> 300  
<212> PRT  
<213> Homo Sapien

<400> 37  
Met Lys Phe Leu Leu Asp Ile Leu Leu Leu Pro Leu Leu Ile  
1 5 10 15  
Val Cys Ser Leu Glu Ser Phe Val Lys Leu Phe Ile Pro Lys Arg  
20 25 30  
Arg Lys Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly  
35 40 45  
His Gly Ile Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys  
50 55 60  
Ser Lys Leu Val Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu  
65 70 75  
Thr Ala Ala Lys Cys Lys Gly Leu Gly Ala Lys Val His Thr Phe  
80 85 90  
Val Val Asp Cys Ser Asn Arg Glu Asp Ile Tyr Ser Ser Ala Lys  
95 100 105  
Lys Val Lys Ala Glu Ile Gly Asp Val Ser Ile Leu Val Asn Asn  
110 115 120  
Ala Gly Val Val Tyr Thr Ser Asp Leu Phe Ala Thr Gln Asp Pro  
125 130 135  
Gln Ile Glu Lys Thr Phe Glu Val Asn Val Leu Ala His Phe Trp  
140 145 150  
Thr Thr Lys Ala Phe Leu Pro Ala Met Thr Lys Asn Asn His Gly  
155 160 165  
His Ile Val Thr Val Ala Ser Ala Ala Gly His Val Ser Val Pro  
170 175 180  
Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe  
185 190 195  
His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile Thr Gly

200 205 210  
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe  
215 220 225  
Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu  
230 235 240  
Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys  
245 250 255  
Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu  
260 265 270  
Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile  
275 280 285  
Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln  
290 295 300

<210> 38

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 38

ggtgaaggca gaaattggag atg 23

<210> 39

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 39

atcccatgca tcagcctgtt tacc 24

<210> 40

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 40

gctgggtgtag tctatacatac agattttttt gctacacaag atcctcag 48

<210> 41

<211> 1377

<212> DNA

<213> Homo Sapien

<400> 41  
gactagttct cttggagtct gggaggagga aagcggagcc ggcagggagc 50  
gaaccaggac tggggtgacg gcagggcagg gggcgctgg ccggggagaa 100  
gcgcgggggc tggagcacca ccaactggag ggtccggagt agcgagcgcc 150  
ccgaaggagg ccatcgggga gccgggaggg gggactgcga gaggaccccg 200  
gcgtccgggc tcccggtgcc agcgctatga ggccactcct cgtcctgctg 250  
ctcctgggcc tggcggccgg ctgcgcggca ctggacgaca acaagatccc 300  
cagcctctgc cggggcacc cgggccttc aggacacgccc ggccaccatg 350  
gcagccaggg cttgcccggc cgcgatggcc gcgcacggccg cgacggcg 400  
ccggggctc cgggagagaa aggcgaggc gggaggccgg gactgccggg 450  
acctcgaggg gaccccgggc cgcgaggaga ggcccggaccc gcggggccca 500  
ccgggcctgc cggggagtgc tcggtgccctc cgcgatccgc cttcagcgcc 550  
aagcgctccg agagccgggt gcctccgccc tctgacgcac cttgcctt 600  
cgaccgcgtg ctggtaacg agcagggaca ttacgacgccc gtcaccggca 650  
attcacactg ccaggtgcct ggggtctact acttcgcccgt ccatgccacc 700  
gtctaccggg ccagcctgca gtttgcgtt gtgaagaatg gcgaatccat 750  
tgccttttc ttccagttt tcgggggggtg gccaagcca gcctcgctct 800  
cggggggggc catggtgagg ctggagcctg aggaccaagt gtgggtgcag 850  
gtgggtgtgg gtgactacat tggcatctat gccagcatca agacagacag 900  
caccttctcc ggatttctgg tgtactccga ctggcacagc tccccagtct 950  
ttgcttagtg cccactgcaa agtgagctca tgctctcaact cctagaagga 1000  
gggtgtgagg ctgacaacca ggtcatccag gagggctggc cccccctggaa 1050  
tattgtaat gactagggag gtggggtaga gcactctccg tcctgctgct 1100  
ggcaaggaat gggAACAGTG GCTGTCTGCG ATCAGGTCTG GCAGCATGGG 1150  
gcagtggctg gatttctgcc caagaccaga ggagtgtgct gtgctggcaa 1200  
gtgtaagtcc cccagttgct ctggccagg agcccacggt ggggtgtctct 1250  
cttcctggtc ctctgcttct ctggatccctc cccacccct cctgctcctg 1300  
gggcggccc ttttctcaga gatcactcaa taaacctaag aaccctcata 1350  
aaaaaaaaaa aaaaaaaaaa aaaaaaaa 1377

<210> 42

<211> 243  
<212> PRT  
<213> Homo Sapien

<400> 42  
Met Arg Pro Leu Leu Val Leu Leu Leu Gly Leu Ala Ala Gly  
1 5 10 15  
Ser Pro Pro Leu Asp Asp Asn Lys Ile Pro Ser Leu Cys Pro Gly  
20 25 30  
His Pro Gly Leu Pro Gly Thr Pro Gly His His Gly Ser Gln Gly  
35 40 45  
Leu Pro Gly Arg Asp Gly Arg Asp Gly Arg Asp Gly Ala Pro Gly  
50 55 60  
Ala Pro Gly Glu Lys Gly Glu Gly Gly Arg Pro Gly Leu Pro Gly  
65 70 75  
Pro Arg Gly Asp Pro Gly Pro Arg Gly Glu Ala Gly Pro Ala Gly  
80 85 90  
Pro Thr Gly Pro Ala Gly Glu Cys Ser Val Pro Pro Arg Ser Ala  
95 100 105  
Phe Ser Ala Lys Arg Ser Glu Ser Arg Val Pro Pro Pro Ser Asp  
110 115 120  
Ala Pro Leu Pro Phe Asp Arg Val Leu Val Asn Glu Gln Gly His  
125 130 135  
Tyr Asp Ala Val Thr Gly Lys Phe Thr Cys Gln Val Pro Gly Val  
140 145 150  
Tyr Tyr Phe Ala Val His Ala Thr Val Tyr Arg Ala Ser Leu Gln  
155 160 165  
Phe Asp Leu Val Lys Asn Gly Glu Ser Ile Ala Ser Phe Phe Gln  
170 175 180  
Phe Phe Gly Trp Pro Lys Pro Ala Ser Leu Ser Gly Gly Ala  
185 190 195  
Met Val Arg Leu Glu Pro Glu Asp Gln Val Trp Val Gln Val Gly  
200 205 210  
Val Gly Asp Tyr Ile Gly Ile Tyr Ala Ser Ile Lys Thr Asp Ser  
215 220 225  
Thr Phe Ser Gly Phe Leu Val Tyr Ser Asp Trp His Ser Ser Pro  
230 235 240  
Val Phe Ala

<210> 43  
<211> 24

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 43  
tacaggccca gtcaggacca gggg 24

<210> 44  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 44  
agccagcctc gctctcg 18

<210> 45  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 45  
gtctgcgatc aggtctgg 18

<210> 46  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 46  
gaaagaggca atggattcgc 20

<210> 47  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 47  
gacttacact tgccagcaca gcac 24

<210> 48  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe  
  
<400> 48  
ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45  
0  
<210> 49  
<211> 1876  
<212> DNA  
<213> Homo Sapien  
  
<400> 49  
ctctttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50  
atccagcctg agaaaacaagc cgggtggctg agccaggctg tgcacggagc 100  
acctgacggg cccaaacagac ccatgctgca tccagagacc tcccctggcc 150  
gggggcacatct cctggctgtg ctccctggccc tccttggcac cacctggca 200  
gaggtgtggc caccggcagct gcaggagcag gctccgatgg ccggagccct 250  
gaacaggaag gagagtttct tgctcctctc cctgcacaac cgcctgcgca 300  
gctgggtcca gcccctgca gctgacatgc ggaggctgga ctggagtgac 350  
agcctggccc aactggctca agccagggca gccctctgtg gaatccaaac 400  
cccgagcctg gcatccggcc tgtggcgcac cctgcaagtg ggctggaaaca 450  
tgcagctgtc gcccgcggc ttggcgtcct ttgttgaagt ggtcagccata 500  
tggtttgcag aggggcagcg gtacagccac gcggcaggag agtgtgctcg 550  
caacgccacc tgcacccact acacgcagct cgtgtggcc acctaagcc 600  
agctgggctg tggggggcac ctgtgctctg caggccagac agcgatagaa 650  
gcctttgtct gtgcctactc ccccgaggc aactgggagg tcaacggaa 700  
gacaatcatc ccctataaga agggtgctg gtgttcgtc tgcacagcca 750  
gtgtctcagg ctgcttcaaa gcctgggacc atgcaggggg gctctgtgag 800  
gtccccagga atccctgtcg catgagctgc cagaaccatg gacgtctcaa 850  
catcagcacc tgccactgcc actgtcccc tggctacacg ggcagatact 900  
gccaagtgag gtgcagcctg cagtgtgtc acggccgggt ccgggaggag 950  
gagtgctcgt gcgtctgtga catcggtac gggggagccc agtgtgccac 1000  
caaggtgcat tttcccttcc acacctgtga cctgaggatc gacggagact 1050  
gtttcatggt gtcttcagag gcagacacct attacagagc caggatgaaa 1100  
tgtcagagga aaggcggggt gctggcccaag atcaagagcc agaaagtgca 1150

ggacatcctc gccttctatc tggccgcct ggagaccacc aacgaggta 1200  
ctgacagtga ctgcgagacc aggaacttct ggatcggct cacctacaag 1250  
accgccaagg actccttccg ctggccaca ggggagcacc aggccttac 1300  
cagtttgcc tttggcagc ctgacaacca cgggctggtg tggctgagtg 1350  
ctgcccattgg gtttggcaac tgcgtggagc tgcaggcttc agctgccttc 1400  
aactggaacg accagcgctg caaaacccga aaccgttaca tctgccagtt 1450  
tgcccaggag cacatctccc ggtggggccc agggtcctgaa ggcctgacca 1500  
catggctccc tcgcctgccc tgggagcacc ggctctgctt acctgtctgc 1550  
ccacctgtct ggaacaaggg ccaggttaag accacatgcc tcatgtccaa 1600  
agaggtctca gaccttgcac aatgccagaa gttggcaga gagaggcagg 1650  
gaggccagtg agggccaggg agtgagtgtt agaagaagct gggcccttc 1700  
gcctgcttt gattggaaag atgggcttca attagatggc gaaggagagg 1750  
acaccgcccag tggtccaaaa aggctgctct cttccacctg gcccagaccc 1800  
tgtggggcag cggagcttcc ctgtggcatg aaccccacgg ggtattaaat 1850  
tatgaatcag ctgaaaaaaaaaaaaa 1876

<210> 50  
<211> 455  
<212> PRT  
<213> Homo Sapien

<400> 50  
Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala  
1 5 10 15  
Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro  
20 25 30  
Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg  
35 40 45  
Lys Glu Ser Phe Leu Leu Ser Leu His Asn Arg Leu Arg Ser  
50 55 60  
Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser  
65 70 75  
Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly  
80 85 90  
Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln  
95 100 105  
Val Gly Trp Asn Met Gln Leu Leu Pro Ala Gly Leu Ala Ser Phe

110

115

120

Val	Glu	Val	Val	Ser	Leu	Trp	Phe	Ala	Glu	Gly	Gln	Arg	Tyr	Ser
125									130					135
His	Ala	Ala	Gly	Glu	Cys	Ala	Arg	Asn	Ala	Thr	Cys	Thr	His	Tyr
			140					145						150
Thr	Gln	Leu	Val	Trp	Ala	Thr	Ser	Ser	Gln	Leu	Gly	Cys	Gly	Arg
				155				160						165
His	Leu	Cys	Ser	Ala	Gly	Gln	Thr	Ala	Ile	Glu	Ala	Phe	Val	Cys
			170					175						180
Ala	Tyr	Ser	Pro	Gly	Gly	Asn	Trp	Glu	Val	Asn	Gly	Lys	Thr	Ile
			185					190						195
Ile	Pro	Tyr	Lys	Lys	Gly	Ala	Trp	Cys	Ser	Leu	Cys	Thr	Ala	Ser
			200					205						210
Val	Ser	Gly	Cys	Phe	Lys	Ala	Trp	Asp	His	Ala	Gly	Gly	Leu	Cys
			215					220						225
Glu	Val	Pro	Arg	Asn	Pro	Cys	Arg	Met	Ser	Cys	Gln	Asn	His	Gly
			230					235						240
Arg	Leu	Asn	Ile	Ser	Thr	Cys	His	Cys	His	Cys	Pro	Pro	Gly	Tyr
			245					250						255
Thr	Gly	Arg	Tyr	Cys	Gln	Val	Arg	Cys	Ser	Leu	Gln	Cys	Val	His
			260					265						270
Gly	Arg	Phe	Arg	Glu	Glu	Glu	Cys	Ser	Cys	Val	Cys	Asp	Ile	Gly
			275					280						285
Tyr	Gly	Gly	Ala	Gln	Cys	Ala	Thr	Lys	Val	His	Phe	Pro	Phe	His
			290					295						300
Thr	Cys	Asp	Leu	Arg	Ile	Asp	Gly	Asp	Cys	Phe	Met	Val	Ser	Ser
			305					310						315
Glu	Ala	Asp	Thr	Tyr	Tyr	Arg	Ala	Arg	Met	Lys	Cys	Gln	Arg	Lys
			320					325						330
Gly	Gly	Val	Leu	Ala	Gln	Ile	Lys	Ser	Gln	Lys	Val	Gln	Asp	Ile
			335					340						345
Leu	Ala	Phe	Tyr	Leu	Gly	Arg	Leu	Glu	Thr	Thr	Asn	Glu	Val	Thr
			350					355						360
Asp	Ser	Asp	Phe	Glu	Thr	Arg	Asn	Phe	Trp	Ile	Gly	Leu	Thr	Tyr
			365					370						375
Lys	Thr	Ala	Lys	Asp	Ser	Phe	Arg	Trp	Ala	Thr	Gly	Glu	His	Gln
			380					385						390
Ala	Phe	Thr	Ser	Phe	Ala	Phe	Gly	Gln	Pro	Asp	Asn	His	Gly	Leu
			395					400						405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu  
410 415 420  
Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr  
425 430 435  
Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg  
440 445 450  
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<400> 52  
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<210> 53  
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<220>  
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<400> 53  
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<210> 54  
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

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<212> PRT  
<213> Homo Sapien

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Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu  
35 40 45  
Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile  
50 55 60  
Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn  
65 70 75  
Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro  
80 85 90  
Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys  
95 100 105  
Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp  
110 115 120

POOTING-GENEVIEVE

Arg Val Lys Glu Lys Arg Asn Lys Thr Thr Glu Glu Asn Gly Glu  
125 130 135  
Lys Gly Thr Glu Ile Phe Arg Ala Ser Ala Val Ile Pro Ser Lys  
140 145 150  
Asp Lys Ala Ala Phe Phe Leu Ser Tyr Glu Glu Leu Leu Gln Arg  
155 160 165  
Arg Leu Gly Lys Tyr Glu His Ser Ile Ser Val Arg Pro Gln Gln  
170 175 180  
Leu Ser Gly Arg Leu Ser Val Asp Val Asn Ile Leu Glu Ser Ala  
185 190 195  
Gly Ile Ala Ser Leu Glu Val Leu Pro Leu His Asn Ser Arg Gln  
200 205 210  
Arg Gly Ser Gly Arg Gly Glu Asp Asp Ser Gly Pro Pro Pro Ser  
215 220 225  
Thr Val Ile Asn Gln Asn Glu Thr Phe Ala Asn Ile Ile Phe Lys  
230 235 240  
Pro Thr Val Val Gln Gln Ala Arg Ile Ala Gln Asn Gly Ile Leu  
245 250 255  
Gly Asp Phe Ile Ile Arg Tyr Asp Val Asn Arg Glu Gln Ser Ile  
260 265 270  
Gly Asp Ile Gln Val Leu Asn Gly Tyr Phe Val His Tyr Phe Ala  
275 280 285  
Pro Lys Asp Leu Pro Pro Leu Pro Lys Asn Val Val Phe Val Leu  
290 295 300  
Asp Ser Ser Ala Ser Met Val Gly Thr Lys Leu Arg Gln Thr Lys  
305 310 315  
Asp Ala Leu Phe Thr Ile Leu His Asp Leu Arg Pro Gln Asp Arg  
320 325 330  
Phe Ser Ile Ile Gly Phe Ser Asn Arg Ile Lys Val Trp Lys Asp  
335 340 345  
His Leu Ile Ser Val Thr Pro Asp Ser Ile Arg Asp Gly Lys Val  
350 355 360  
Tyr Ile His His Met Ser Pro Thr Gly Gly Thr Asp Ile Asn Gly  
365 370 375  
Ala Leu Gln Arg Ala Ile Arg Leu Leu Asn Lys Tyr Val Ala His  
380 385 390  
Ser Gly Ile Gly Asp Arg Ser Val Ser Leu Ile Val Phe Leu Thr  
395 400 405  
Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile Leu

410 415 420  
Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr  
425 430 435  
Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu  
440 445 450  
Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu  
455 460 465  
Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr  
470 475 480  
Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val  
485 490 495  
Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser  
500 505 510  
Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His  
515 520 525  
Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile  
530 535 540  
Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp  
545 550 555  
Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr  
560 565 570  
Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu  
575 580 585  
Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu Lys Glu Arg  
590 595 600  
Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg Phe Leu  
605 610 615  
Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met  
620 625 630  
Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro  
635 640 645  
Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly  
650 655 660  
Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Gln Asn Lys  
665 670 675  
Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His  
680 685 690  
Leu Gly Ile Arg

FOFEE80" 96844660

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<212> DNA  
<213> Artificial Sequence  
  
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<223> Synthetic oligonucleotide probe  
  
<400> 57  
cacatcgagc gtctctgg 18  
  
<210> 58  
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<223> Synthetic oligonucleotide probe  
  
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<223> Synthetic oligonucleotide probe  
  
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tgctgttgc tttctccgccc gcggcactga tccccacagg tgatggcag 150  
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cagttccaa gtcaataaga gtgacgactc tgtgattcag ctactgaatc 250  
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gaggacagaa caactccgaa gaaaagaaaag agtacttcat ctagatcagc 1350  
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<210> 61
<211> 440
<212> PRT
<213> Homo Sapien
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<400> 61  
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 35 40 45  
 Phe Thr Lys Asp Val Thr Val Ile Glu Gly Glu Val Ala Thr Ile  
 50 55 60  
 Ser Cys Gln Val Asn Lys Ser Asp Asp Ser Val Ile Gln Leu Leu  
 65 70 75  
 Asn Pro Asn Arg Gln Thr Ile Tyr Phe Arg Asp Phe Arg Pro Leu  
 80 85 90  
 Lys Asp Ser Arg Phe Gln Leu Leu Asn Phe Ser Ser Ser Glu Leu  
 95 100 105  
 Lys Val Ser Leu Thr Asn Val Ser Ile Ser Asp Glu Gly Arg Tyr  
 110 115 120  
 Phe Cys Gln Leu Tyr Thr Asp Pro Pro Gln Glu Ser Tyr Thr Thr  
 125 130 135  
 Ile Thr Val Leu Val Pro Pro Arg Asn Leu Met Ile Asp Ile Gln  
 140 145 150  
 Lys Asp Thr Ala Val Glu Gly Glu Glu Ile Glu Val Asn Cys Thr  
 155 160 165  
 Ala Met Ala Ser Lys Pro Ala Thr Thr Ile Arg Trp Phe Lys Gly  
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 Asn Thr Glu Leu Lys Gly Lys Ser Glu Val Glu Glu Trp Ser Asp  
 185 190 195  
 Met Tyr Thr Val Thr Ser Gln Leu Met Leu Lys Val His Lys Glu  
 200 205 210  
 Asp Asp Gly Val Pro Val Ile Cys Gln Val Glu His Pro Ala Val  
 215 220 225  
 Thr Gly Asn Leu Gln Thr Gln Arg Tyr Leu Glu Val Gln Tyr Lys  
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 Pro Gln Val His Ile Gln Met Thr Tyr Pro Leu Gln Gly Leu Thr  
 245 250 255  
 Arg Glu Gly Asp Ala Leu Glu Leu Thr Cys Glu Ala Ile Gly Lys  
 260 265 270  
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 275 280 285  
 Pro Gln His Ala Val Leu Ser Gly Pro Asn Leu Phe Ile Asn Asn  
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305

310

315

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350 355 360

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365 370 375

Gly Gly Val Val Ala Val Val Val Phe Ala Met Leu Cys Leu Leu  
380 385 390

Ile Ile Leu Gly Arg Tyr Phe Ala Arg His Lys Gly Thr Tyr Phe  
395 400 405

Thr His Glu Ala Lys Gly Ala Asp Asp Ala Ala Asp Ala Asp Thr  
410 415 420

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Lys Glu Tyr Phe Ile  
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<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 62

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<210> 63

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 63

gtacactgtg accagtcagc 20

<210> 64

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<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 64  
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<210> 65  
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<400> 65  
ttcaatctcc tcaccttcca ccgc 24

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<400> 66  
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<210> 67  
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<210> 68  
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<212> DNA  
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cttqqaqcca ggcccgaagg caacagaggg cgggtggagag gcccctggcc 1850

HOMO SAPIEN PROTEIN SEQUENCE

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cagtcacccc tccacgcaaa gcctacatc taagccagag agagacaggg 1950  
cagctggggc cgggctctca gccagtgaga tggccagccc ctcctgctg 2000  
ccacaccacg taagttctca gtcccaacct cggggatgtg tgcagacagg 2050  
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aaaaaa 2555

<210> 69  
<211> 598  
<212> PRT  
<213> Homo Sapien

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35 40 45  
Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe  
50 55 60  
Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu  
65 70 75  
Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser  
80 85 90  
Leu Arg Leu Pro Arg Leu Leu Leu Asp Leu Ser His Asn Ser  
95 100 105  
Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

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110	115	120
Ala Leu Arg Leu Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly		
125	130	135
Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp		
140	145	150
Asn Gln Leu Glu Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly		
155	160	165
Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu		
170	175	180
Arg Pro Glu Asp Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp		
185	190	195
Val Ser Asn Leu Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly		
200	205	210
Leu Phe Pro Arg Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe		
215	220	225
Asn Cys Val Cys Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu		
230	235	240
Ser His Val Thr Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe		
245	250	255
Pro Pro Lys Asn Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala		
260	265	270
Asp Phe Gly Cys Pro Ala Thr Thr Thr Ala Thr Val Pro Thr		
275	280	285
Thr Arg Pro Val Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu		
290	295	300
Ala Pro Thr Trp Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro		
305	310	315
Ser Pro Pro Ser Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln		
320	325	330
Pro Gln Asp Cys Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys		
335	340	345
His Leu Gly Thr Arg His His Leu Ala Cys Leu Cys Pro Glu Gly		
350	355	360
Phe Thr Gly Leu Tyr Cys Glu Ser Gln Met Gly Gln Gly Thr Arg		
365	370	375
Pro Ser Pro Thr Pro Val Thr Pro Arg Pro Pro Arg Ser Leu Thr		
380	385	390
Leu Gly Ile Glu Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu		
395	400	405

Gln Arg Tyr Leu Gln Gly Ser Ser Val Gln Leu Arg Ser Leu Arg  
410 415 420  
Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val Thr  
425 430 435  
Leu Arg Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu  
440 445 450  
Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro  
455 460 465  
Gly Arg Val Pro Glu Gly Glu Ala Cys Gly Glu Ala His Thr  
470 475 480  
Pro Pro Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg  
485 490 495  
Glu Gly Asn Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val  
500 505 510  
Leu Leu Ala Ala Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg  
515 520 525  
Arg Gly Arg Ala Met Ala Ala Ala Gln Asp Lys Gly Gln Val  
530 535 540  
Gly Pro Gly Ala Gly Pro Leu Glu Leu Glu Gly Val Lys Val Pro  
545 550 555  
Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Glu Ala Leu  
560 565 570  
Pro Ser Gly Ser Glu Cys Glu Val Pro Leu Met Gly Phe Pro Gly  
575 580 585  
Pro Gly Leu Gln Ser Pro Leu His Ala Lys Pro Tyr Ile  
590 595

<210> 70

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ccctccactg cccccaccgac tg 22

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71  
cggttctggg gacgttaggg ctcg 24

<210> 72  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 72  
ctgcccaccc tccacctgcc tcaat 25

<210> 73  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 73  
aggactgcc accgtccacc tgcctcaatg gggcacatg ccacc 45

<210> 74  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 74  
acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75  
<211> 1077  
<212> DNA  
<213> Homo Sapien

<400> 75  
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cgccccgcca cctccttgct accccactct tgaaccaca gctgttggca 100  
gggtccccag ctcatgccag cctcatctcc tttcttgcta gcccccaaag 150  
ggcctccagg caacatgggg ggcccagtca gagagccggc actctcagtt 200  
gccctctggc tgagttgggg ggcagctctg gggccgtgg cttgtgccat 250  
ggctctgctg acccaacaaa cagagctgca gagcctcagg agagaggtga 300  
gccggctgca ggggacagga ggcccctccc agaatgggaa agggtatccc 350  
tggcagagtc tcccggagca gagttccgat gccctggaag cctgggagaa 400

tggggagaga tccccgaaaa ggagagcagt gctcacccaa aaacagaaga 450  
agcagcactc tgcctgcac ctggttccca ttaacgcccac ctccaaggat 500  
gactccgatg tgacagaggt gatgtggcaa ccagctctta ggcgtggag 550  
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caggtggtgt ctcgagaagg ccaaggaagg caggagactc tattccgatg 700  
tataagaagt atgccctccc acccggaccc ggcctacaac agctgctata 750  
gcgcaggtgt cttccattta caccaagggg atattctgag tgtcataatt 800  
ccccgggcaa gggcgaaact taacctctc ccacatggaa cttccctggg 850  
gtttgtgaaa ctgtgattgt gttataaaaa gtggctccca gcttggaga 900  
ccagggtggg tacataactgg agacagccaa gagctgagta tataaaggag 950  
agggaatgtg caggaacaga ggcatttcc tgggttggc tccccgttcc 1000  
tcactttcc ctttcattc ccacccctta gactttgatt ttacggatat 1050  
cttgcttctg ttccccatgg agctccg 1077

<210> 76  
<211> 250  
<212> PRT  
<213> Homo Sapien

<400> 76

Met	Pro	Ala	Ser	Ser	Pro	Phe	Leu	Leu	Ala	Pro	Lys	Gly	Pro	Pro
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Gly	Asn	Met	Gly	Gly	Pro	Val	Arg	Glu	Pro	Ala	Leu	Ser	Val	Ala
														30
Leu	Trp	Leu	Ser	Trp	Gly	Ala	Ala	Leu	Gly	Ala	Val	Ala	Cys	Ala
														45
Met	Ala	Leu	Leu	Thr	Gln	Gln	Thr	Glu	Leu	Gln	Ser	Leu	Arg	Arg
														60
Glu	Val	Ser	Arg	Leu	Gln	Gly	Thr	Gly	Gly	Pro	Ser	Gln	Asn	Gly
														75
Glu	Gly	Tyr	Pro	Trp	Gln	Ser	Leu	Pro	Glu	Gln	Ser	Ser	Asp	Ala
														90
Leu	Glu	Ala	Trp	Glu	Asn	Gly	Glu	Arg	Ser	Arg	Lys	Arg	Arg	Ala
														105
Val	Leu	Thr	Gln	Lys	Gln	Lys	Lys	Gln	His	Ser	Val	Leu	His	Leu
														120
														115
														110

Val Pro Ile Asn Ala Thr Ser Lys Asp Asp Ser Asp Val Thr Glu  
125 130 135  
Val Met Trp Gln Pro Ala Leu Arg Arg Gly Arg Gly Leu Gln Ala  
140 145 150  
Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly Val Tyr Leu Leu  
155 160 165  
Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr Met Gly Gln  
170 175 180  
Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu Phe Arg  
185 190 195  
Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn Ser  
200 205 210  
Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu  
215 220 225  
Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro  
230 235 240  
His Gly Thr Phe Leu Gly Phe Val Lys Leu  
245 250

<210> 77  
<211> 2849  
<212> DNA  
<213> Homo Sapien

<400> 77  
cactttctcc ctctcttcct ttactttcga gaaaccgcgc ttccgcttct 50  
ggtcgcagag acctcggaga ccgcgcgggg gagacggagg tgctgtgggt 100  
gggggggacc tgtggctgct cgtaccgcgc cccaccctcc tcttctgcac 150  
tgccgtccctc cggaagacct tttccctgc tctgtttcct tcaccgagtc 200  
tgtgcacgc cccggacactg gcccggagga ggcttggccg gcgggagatg 250  
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gaagatgggc tccctgtggac agggacttt gctggcgtac tgcctgtcc 350  
ttgccttgc ctctggcctg gtcctgagtc gtgtgccccca tgtccagggg 400  
gaacagcagg agtgggaggg gactgaggag ctggcgtcgc ctccggacca 450  
tgccgagagg gctgaagaac aacatgaaaa atacaggccc agtcaggacc 500  
aggggctccc tgcttcccg tgcttgcgt gctgtgaccc cggtaacctcc 550  
atgtacccgg cgaccggcgt gccccagatc aacatcacta tcttgaaagg 600  
ggagaagggt gaccgcggag atcgaggcct ccaagggaaa tatggcaaaa 650

caggctcagc aggggccagg ggccacactg gacccaaagg gcagaaggc 700  
tccatggggg cccctggga gcggtgcaag agccactacg ccgcctttc 750  
ggtggcccg aagaagccca tgcacagcaa ccactactac cagacggtga 800  
tcttcgacac ggagttcgtg aacctctacg accacttcaa catgttcacc 850  
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gcacacctgg aaccagaagg agacctacct gcacatcatg aagaacgagg 950  
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cctacatcac cttcagtggc tacctggtca agcacgcac cgagccctag 1150  
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cccagatccc gcagcctctg gagagagctg acggcagatg aaatcaccag 1350  
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cacatcctca agtgaccccg cacggcgaga cgcgggtggc ggcagggcgt 1450  
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ctaaagggtct caaaaggagc aaagtaaacc gtggaggaca aagaaaaggg 1550  
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<210> 78  
<211> 281  
<212> PRT  
<213> Homo Sapien

<400> 78  
Met Gly Ser Arg Gly Gln Gly Leu Leu Leu Ala Tyr Cys Leu Leu  
1 5 10 15  
Leu Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val  
20 25 30  
Gln Gly Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser  
35 40 45  
Pro Pro Asp His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr  
50 55 60  
Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg  
65 70 75  
Cys Cys Asp Pro Gly Thr Ser Met Tyr Pro Ala Thr Ala Val Pro  
80 85 90  
Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly  
95 100 105  
Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly Ser Ala Gly

110	115	120
Ala Arg Gly His Thr Gly Pro Lys Gly Gln Lys Gly Ser Met Gly		
125	130	135
Ala Pro Gly Glu Arg Cys Lys Ser His Tyr Ala Ala Phe Ser Val		
140	145	150
Gly Arg Lys Lys Pro Met His Ser Asn His Tyr Tyr Gln Thr Val		
155	160	165
Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met		
170	175	180
Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe		
185	190	195
Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His		
200	205	210
Ile Met Lys Asn Glu Glu Glu Val Val Ile Leu Phe Ala Gln Val		
215	220	225
Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu		
230	235	240
Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg		
245	250	255
Glu Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe		
260	265	270
Ser Gly Tyr Leu Val Lys His Ala Thr Glu Pro		
275	280	

<210> 79

<211> 24

<212> DNA

<212> DMT

<220>

<223> Synthetic oligonucleotide probe

<400> 79

tacaggcccc gtcaggacca gggg 24

<210> 80

<211> 24

<212> DNA

### <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 80

ctgaaga

<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 81  
cccggtgctt gcgctgctgt gaccccggtt cctccatgtt cccgg 45

<210> 82  
<211> 2284  
<212> DNA  
<213> Homo Sapien

<400> 82  
gcggagcatt cgctcggtt ctcggcgaga ccccccgcgcg gattcgccgg 50  
tccttcccgcc gggcgcgaca gagctgtcct cgcacctgga tggcagcagg 100  
ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150  
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200  
gaccaaaaact aaactgaaat ttaaaatgtt cttcgggggaa gaagggagct 250  
tgacttacac tttggtaata atttgcttcc tgacactaag gctgtctgt 300  
agtcagaatt gcctcaaaaaa gagtctagaa gatgtgtca ttgacatcca 350  
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ctcaagaaga ctgcattaat tcttgctgtt caacaaaaaa catatcaggg 450  
gacaaagcat gtaacttgat gatctcgac actcgaaaaa cagctagaca 500  
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tctcagcctc ccacgaccct catttctaca gttttacac gggctgcggc 1100  
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cacctacgga ctcgaaaggc agcttagaaa ccataccgtt tacagaaatc 1200  
tccaaactaa ctttgaacac aggaaatgtg tataacccta ctgcacttc 1250  
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gtagggaggc cagtccaggc agttcctccc agggcagtgt tccagaaaaat 1350  
cagtagggcc ttccatttga aaaatggctt cttatcggtt ccctgctctt 1400  
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ggtcaggctg gtctcaaact cctgacctag tgatccaccc tcctcggtc 1900  
cccaaagtgc tgggattaca ggcattgagcc accacagctg gcccccttct 1950  
gttttatgtt tggatgttga gaaggaatga agtgggaacc aaatttagta 2000  
attttgggtt atctgtctct aaaatattag ctaaaaacaa agctctatgt 2050  
aaagtaataa agtataattt ccatataat ttcaaaattc aactggctt 2100  
tatgcaaaga aacaggttag gacatctagg ttccaattca ttcacattct 2150  
tggttccaga taaaatcaac tgtttatatc aatttctaattt ggatttgctt 2200  
ttcttttat atggattcct taaaactta ttccagatgt agttccttcc 2250  
aattaaatat ttgaataaaat ctttgttac tcaa 2284

<210> 83  
<211> 431  
<212> PRT  
<213> Homo Sapien

<400> 83  
Met Phe Phe Gly Gly Glu Gly Ser Leu Thr Tyr Thr Leu Val Ile  
1 5 10 15

Ile Cys Phe Leu Thr Leu Arg Leu Ser Ala Ser Gln Asn Cys Leu  
 20 25 30  
 Lys Lys Ser Leu Glu Asp Val Val Ile Asp Ile Gln Ser Ser Leu  
 35 40 45  
 Ser Lys Gly Ile Arg Gly Asn Glu Pro Val Tyr Thr Ser Thr Gln  
 50 55 60  
 Glu Asp Cys Ile Asn Ser Cys Cys Ser Thr Lys Asn Ile Ser Gly  
 65 70 75  
 Asp Lys Ala Cys Asn Leu Met Ile Phe Asp Thr Arg Lys Thr Ala  
 80 85 90  
 Arg Gln Pro Asn Cys Tyr Leu Phe Phe Cys Pro Asn Glu Glu Ala  
 95 100 105  
 Cys Pro Leu Lys Pro Ala Lys Gly Leu Met Ser Tyr Arg Ile Ile  
 110 115 120  
 Thr Asp Phe Pro Ser Leu Thr Arg Asn Leu Pro Ser Gln Glu Leu  
 125 130 135  
 Pro Gln Glu Asp Ser Leu Leu His Gly Gln Phe Ser Gln Ala Val  
 140 145 150  
 Thr Pro Leu Ala His His His Thr Asp Tyr Ser Lys Pro Thr Asp  
 155 160 165  
 Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys Phe Gly Ser Ser Asp  
 170 175 180  
 His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala Ser Ala Gln Leu  
 185 190 195  
 Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser Gln Phe Ser  
 200 205 210  
 Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val Ser Ala  
 215 220 225  
 Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser Ala  
 230 235 240  
 Thr Pro Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr  
 245 250 255  
 Pro Ser Gly Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro  
 260 265 270  
 Val Thr Thr Val Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr  
 275 280 285  
 Val Phe Thr Arg Ala Ala Ala Thr Leu Gln Ala Met Ala Thr Thr  
 290 295 300  
 Ala Val Leu Thr Thr Phe Gln Ala Pro Thr Asp Ser Lys Gly

305

310

315

Ser Leu Glu Thr Ile Pro Phe Thr Glu Ile Ser Asn Leu Thr Leu  
320 325 330

Asn Thr Gly Asn Val Tyr Asn Pro Thr Ala Leu Ser Met Ser Asn  
335 340 345

Val Glu Ser Ser Thr Met Asn Lys Thr Ala Ser Trp Glu Gly Arg  
350 355 360

Glu Ala Ser Pro Gly Ser Ser Ser Gln Gly Ser Val Pro Glu Asn  
365 370 375

Gln Tyr Gly Leu Pro Phe Glu Lys Trp Leu Leu Ile Gly Ser Leu  
380 385 390

Leu Phe Gly Val Leu Phe Leu Val Ile Gly Leu Val Leu Leu Gly  
395 400 405

Arg Ile Leu Ser Glu Ser Leu Arg Arg Lys Arg Tyr Ser Arg Leu  
410 415 420

Asp Tyr Leu Ile Asn Gly Ile Tyr Val Asp Ile  
425 430

<210> 84

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 84

aggaggatt atccttgacc tttgaagacc 30

<210> 85

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 85

gaagcaagtg cccagctc 18

<210> 86

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 86

cgggtccctg ctctttgg 18

107820 968411660

<210> 87  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 87  
caccgttagct gggagcgcac tcac 24

<210> 88  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 88  
agtgttaagtc aagctccc 18

<210> 89  
<211> 49  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 89  
gcttcctgac actaaggctg tctgcttagtc agaattgcct caaaaagag 49

<210> 90  
<211> 957  
<212> DNA  
<213> Homo Sapien

<400> 90  
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cattccagat gcacccctgt ccagtgcgtc ctatagcatc cgcatcg 150  
gggagaggcc tgtcctcaaa gctccagtcc cccaaaggca aaaaatgtgac 200  
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35 40 45  
Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg  
50 55 60  
Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala  
65 70 75  
Tyr Arg Leu Leu Ser Gly Gly Arg Ser Lys Tyr Ala Lys Ile  
80 85 90  
Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val  
95 100 105  
Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn  
110 115 120  
Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser  
125 130 135  
Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu  
140 145 150  
Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn  
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Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg  
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Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly  
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Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser  
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